

SCINTILLATOR COATINGS HAVING BARRIER PROTECTION, LIGHT  
TRANSMISSION, AND LIGHT REFLECTION PROPERTIES

ABSTRACT

[0039] Scintillator coatings having predetermined barrier protection, light transmission, and light reflection properties are described. These scintillators comprise: a scintillator material comprising a barrier coating disposed thereon, wherein the barrier coating: (1) provides barrier protection to the scintillator material, (2) is capable of transmitting light therethrough, and (3) is capable of reflecting light back into the scintillator material. The barrier coating may comprise a material that has been modified to have light transmissive and reflective properties in addition to protective properties, or it may comprise a protective material and a reflective material that have been co-deposited onto the scintillator material. The barrier coating is a single coating overlying the scintillator material in a substantially conformal manner.